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THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: H. OKAMOTO, et al

Serial No.: 10/769,927

Filed: February 3, 2004

For: CHANNEL ADAPTER AND DISK ARRAY DEVICE

**PETITION TO MAKE SPECIAL  
UNDER 37 CFR 1.102(d) and MPEP. §708.02, VIII**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

September 14, 2004

Sir:

**1. Petition**

Applicants hereby petition to make this application **Special**, in accordance with 37 CFR §1.102(d) and MPEP 708.02, VIII. The present invention is a new application filed in the United States Patent and Trademark Office on February 3, 2004 and as such has not received any examination by the Examiner.

**2. Claims**

Applicants hereby represent that all the claims in the present application are directed to a single invention. If upon examination it is determined that all the claims presented are not directed to a single invention, Applicants will make an election without traverse as a prerequisite to the granting of special status.

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### **3. Search**

Applicants hereby submit that a pre-examination search has been made by a professional searcher, (a copy of which is attached), in the following classes and subclasses:

| <u>Class</u> | <u>Subclasses</u>      |
|--------------|------------------------|
| 714          | 18, 748, 770, 818, 824 |

### **4. Copy of References**

A listing of all references found by the professional searcher is provided by a Form PTO-1449 and copies of the references and the Form PTO-1449 are submitted as part of an Information Disclosure Statement (IDS) filed on even date.

### **5. Detailed Discussion of the References and Distinctions Between the References and the Claims**

Below is a discussion of the references uncovered by the search and cited in the IDS filed on even date that appear to be most closely related to the subject matter encompassed by the claims of the present application, and which discussion particularly points out how Applicants' claimed subject matter is distinguishable over those references. All other references uncovered by the search and cited in the IDS filed on even date are **not** treated in detail herein.

#### **a. Detailed Discussion of the References**

**U.S. Patent No. 5,477,552 (Nishiyama '552)**, assigned to Fujitsu Limited, discloses a data checking means that executes a write checking process when the write data is transferred and read checking process when read data is transferred.

Error detecting codes are generated for host devices and compared to check whether or not data has been correctly written (see column 5, lines 59-67).

**U.S. Patent No. 6,161,207 (Lockhart et al. '207)**, assigned to Motorola, Inc., discloses an error code generator that provides error codes for packet portions. The error codes are compared to indicate whether newly received information is correct or received in error (see column 5, lines 2-21).

**Japanese patent document JP 5-143472 (Yamane '472)**, assigned to Nippon Telegraph and Telephone Corporation, discloses a method of deciding whether data is transmitted correctly by comparing the parity obtained from reception data with the retransmitted parity.

**Japanese patent document JP-8-314822 (Yokoyama '822)**, assigned to Ricoh Co., Ltd., discloses a method of avoiding useless data transmission such as retransmission by comparing CRC codes.

**b. Distinctions Between the References and the Claims**

The present invention as now recited in the claims is directed to a channel adapter that is used in a disk array device and controls data exchange with an upper-level device, the channel adapter includes an internal memory that stores data from an external memory, a guarantee code computing unit that computes an input guarantee code in regard to the data inputted to the internal memory and computes an output guarantee code in regard to the data read from the internal memory, with the guarantee codes being retainable in the guarantee code computing unit, a communication unit that transmits the data read from the internal memory to the upper-level device, and a control unit which, in a case where partial data of the data is to retransmitted to the

upper-level device, uses the communication unit to transmit the partial data to the upper-level device, compares the input guarantee code and the output guarantee code recalculated by the guarantee code computing unit in regard to the data, and determines that transmission of the data has been conducted normally in a case where both guarantee codes are in conformity.

The present invention as recited in the claims filed are not taught or suggested by any of the above noted references whether taken individually or in combination with each other or in combination with any of the other references now of record. The above described features of the present invention, particularly a channel adapter that is used in a disk array device and controls data exchange with an upper-level device, or a control unit which, in a case where partial data of the data is to retransmitted to the upper-level device, uses the communication unit to transmit the partial data to the upper-level device, compares the input guarantee code and the output guarantee code recalculated by the guarantee code computing unit in regard to the data, and determines that transmission of the data has been conducted normally in a case where both guarantee codes are in conformity.

**6. Fee (37 C.F.R. 1.17(i))**

The fee required by 37 C.F.R. § 1.17(i) is to be paid by:

☒ [ X ] the Credit Card Payment Form (attached) for \$130.00.

☐ [ ] charging Account \_\_\_\_\_ the sum of \$130.00.

A duplicate of this petition is attached.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (1309.43472x00).

Respectfully submitted,

Antonelli, Terry, Stout & Kraus, LLP

A handwritten signature in black ink, appearing to read 'F. Bailey', is written over a horizontal line.

Frederick D. Bailey  
Registration No. 42,282

FDB/sdb  
Enclosures